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AGO, D/A ltr, 29 Apr 1980

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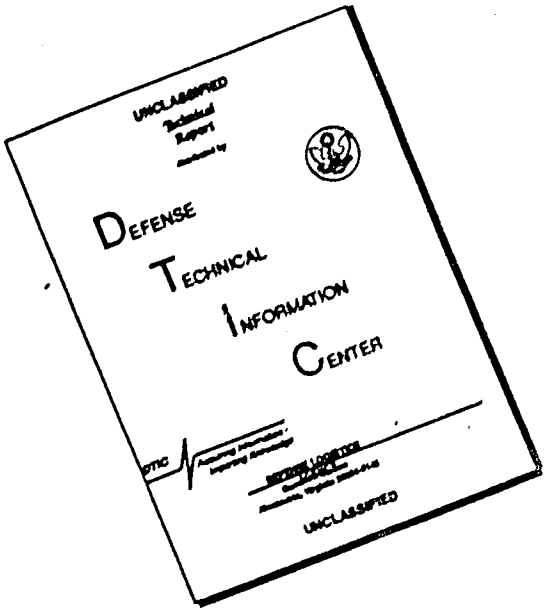

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (28 Jan 70) FOR OT UT 694292 2 February 1970

SUBJECT: Operational Report - Lessons Learned, Headquarters, 69th Engineer Battalion, Period Ending 31 October 1969

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
as

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UNCLASSIFIED REPORT
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DEPARTMENT OF THE ARMY
HEADQUARTERS, 69TH ENGINEER BATTALION (CONSTRUCTION)
APO San Francisco 96215

EGFA-OP 12 November 1969

SUBJECT: Operational Report - Lessons Learned, 69th Engineer Battalion (Construction) for the Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

Commander in Chief, US Army Pacific, ATTN: GPOP-DT, APO 96558
Commanding General, US Army Vietnam, ATTN: AVHGC-DST, APO 96375
Commanding Officer, 34th Engineer Group, ATTN: EGF-OP, APO 96320

1. SECTION I, Operations: Significant Activities

a. Command:

(1) The battalion was commanded by LTC Robert A. Purple and continued its primary construction mission during the reporting period.

(2) Command of Company A passed from Cpt Harley L. Brinkley to Cpt Gary L. Wade on 16 September 1969.

(3) Company B was commanded by Cpt James E. Stevens Jr. during the reporting period.

(4) Command of Company C passed from 1Lt Paul H. Weisenberger Jr. to Cpt Nebgen on 25 August 1969, and thence to Cpt Roy F. Canavan on 20 September 1969.

(5) Command of Company D passed from Cpt Ferguson to Cpt William R. Johnson on 25 September 1969.

(6) During the reporting period the battalion acquired an Executive Officer and nine junior officers to fill vacated slots. Turbulence generated by these gains and losses, as well as officer personnel shifts, was minimal and continuity was maintained.

(7) Organizational Locations:

(a) Headquarters and Headquarters Company, Company A - Can Tho, Phong Dinh Province.

(b) Company B - Binh Minh, Vinh Long Province.

(c) Company C and D - Binh Thuy, Phong Dinh Province.

(d) Unit Movements - None

(8) AOR: The battalion remained located in the IV CTZ, south of the Mekong River, with construction tasks in nine of the twelve provinces.

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694292
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b. Personnel, Administration, Morale and Discipline:

(1) The battalion is organized under TOE 5-115G as modified by MTOE's 5-116G, 5-117G, and 5-118G (See Inclosure). On 25 October 1969 the authorized strength level was raised from Column II to Column I of MTOE's.

(2) At the end of the reporting period the battalion strength was as follows:

	OFF	WO	EM	TOTAL
AUTH	32	7	899	938
ASG	32	7	683	722

(3) At the close of the period the battalion was operating well below authorized strength due mainly to increase in authorization. Status of personnel shortages were furnished thru command channels for fill.

(4) During the reporting period, 5 EM were promoted to E-6, 117 EM to E-5, and 109 EM to E-4. There was one promotion to Cpt and three promotions to 1Lt.

(5) Awards data for the period.

	RECOMMENDED	APPROVED
Bronze Star	19	19
ARCOM	42	45
Purple Heart	1	1
20th Bge Certificate	7	5
20th Bge Unit Commendation	0	1

(6) The battalion employed an average daily total of 165 Vietnamese during the period in skilled, semi-skilled, and unskilled positions. MI construction personnel remain consolidated into the 1st platoon of Company C, working in the Can Tho - Binh Thuy area.

(7) The battalion re-enlistment rate for the first term RA personnel was 43%.

(8) Morale within the battalion remained good.

(9) Discipline remained good with an increase of Article 15 punishment due mainly to absence from formations and place of duty.

c. Intelligence and Counter-Intelligence:

(1) The battalion continues to receive comprehensive intelligence information on its AOR by daily attendance at the IV Corps Joint Intelligence Center Briefing, and receipt of INTSUM's from the 164th Aviation Group (Combat), II FFV, and the 307th Combat Aviation Battalion. Pertinent intelligence information is disseminated to the companies by the S-2 each evening.

(2) Current information on LOC's within the battalion's AOR is maintained by daily reports from G-2 AIR, IV Corps, on interdictions of major LOC's in IV Corps.

(3) Within the battalion, command emphasis has been placed on the gathering of intelligence and complete and prompt reporting of anything of possible intelligence value.

d. Plans, Operations, and Training

(1) The 69th EBC continued to perform its primary mission of construction during the period; involving LOC construction, operational support, NER projects, and base construction. The LOC restoration of QL-4 in Vinh Long Province remained the largest battalion project during the reporting period.

(2) Effects of enemy action on the battalion operations were minimal. B Co received one mortar round, resulting in 1 WIA, and lost time to several mining incidents on QL-4 resulting in one WIA. D Co had one mine incident at Rach Soi resulting in no US casualities. Other outlying units were not affected, and Can Tho Army Airfield remained free of incidents.

(3) Co A remained primarily devoted to maintenance and equipment support of the battalion throughout the reporting period. However on 27 Sept 69 they assumed the responsibility from C Company of operating the barge offloading site.

(4) Co B was mostly committed to the LOC Program throughout the reporting period, restoring QL-4 in Vinh Long Province from Binh Minh to Ba Cang. An airfield repair project at An Thoi and a revetment project on Can Tho airfield were the only other projects worked on by Co B.

(5) Co C continued to operate the Rock Offloading Facility at Binh Minh until 27 September when it was turned over to A Co. They also completed the facilities at Can Tho Airfield to support the relocation of aviation units from Dong Tam. These included a 250 man mess hall, a BEQ, a BOQ, showers, latrines, and a complete low voltage power distribution system. Additionally, Company C built a total of 31 AH-1G revetments and 16 CH-47 revetments on the south side of Can Tho Airfield.

(6) Company D dismantled a water tower at Dong Tam and reconstructed it on Can Tho airfield in support of the aviation units relocation. A road and drainage system was constructed for this project. A revetment project on the north side of Can Tho Airfield was completed consisting of 26 UH-1D revetments and 3 O-1 revetments. A MACV Upgrade project at Chau Doc was completed which included a 2 story 20' x 60' BEQ with latrine, a 20' x 50' BOQ, and a 10' x 15' latrine.

(7) Throughout the reporting period, all companies have supported Company B by commitment of equipment and personnel to the QL-4 project.

(8) This reporting period was during the monsoon season with rains delaying progress on horizontal construction. There were approximately 20,000 MH lost to weather during this period.

(9) The following is the battalion's average distribution of USMH available for projects during the reporting period:

Operational Support	23.9%
Minimum Essential Requirements	0.1%
LOC Restoration	43.0%
Base Construction	27.9%
Security	5.1%

(10) The following is a narrative summary of projects which were completed during August, September, and October:

(a) LOC Restoration, QL-4, Binh Minh to Ba Cang. Effort continued on the 9KM section between Binh Minh and Ba Cang. The primary construction materials for this period were sand-cement and aggregate. The design road is 24' wide with 8' shoulders. At the close of this period this section was 60.2% complete. To date 1,742 tons of cement have been used. During this period 1.18 KM (6,600 CY) of subbase and 1.01 KM (6,500 tons) of base were completed. 6.98 KM of subgrade (40,000 CY), 6.62 KM (17,800 CY) of subbase and 2.23 KM (6,162 CY) of base have been completed to date. Use of MCA-LOC equipment continued to augment the TOC equipment, 10 - 12 cubic yard dump trucks were added during this reporting period. Maintenance of the haul road diverted much of this capability because of extensive failures. The sand-cement stabilization plant was used during this period. Technical problems, particularly in the cement feed system, have periodically deadlined this plant. A Dynaelectron team is attached to the battalion for maintenance of MCA-LOC equipment. Company B retained primary responsibility for the project, augmented by much of the remainder of the battalion's horizontal construction capability. All personnel and equipment continued to work out of the Binh Minh base camp.

(b) The Rock Offloading Site at Binh Minh was turned over to A Company and continued to operate throught the period and offloaded a total of 9,318 tons.

(c) Relocation of 164th CAG units from Dong Tam to Can Tho: Companies B, C and D completed these facilities as follows:

1 Aircraft revetments - 31 AH-1G, 16 CH-47, 24 UH-1D, and 3 O-1.

2 MER facilities - 6 latrines, 4 showers, interior roads, mess hall slab, maintenance shop slab and area drainage.

3 Cantonment facilities - one 40' x 70' mess hall, one 20' x 108' BOQ, one 20' x 108' BOQ and one 10,500 gallon water tanks with 36' towers.

4 Power Distribution - One 20' x 30' generator shed with three 150 KW generators and 2,000 linear feet of electrical distribution.

(d) ASP Upgrade, Can Tho: Company D completed the construction of additional berms needed for ammo storage on Can Tho Airfield. Nine foot high berms of sand were constructed and peneprimed.

(e) MACV Upgrade, Chau Doc: Company D completed a 2 story 20' x 60' EM Barracks with latrine, a single story 20' x 50' BOQ, and 10' x 15' latrine.

(f) Repair of An Thoi Airfield: Company B completed the repair of An Thoi this period. Repaired failures in M8A1 matting on runway, taxiway, and turnarounds and installed additional culverts to alleviate drainage problems.

(11) The battalion is presently active in or plans to be active in the following projects during the next period:

Operational Support Projects	19
Base Construction Projects	15
MACV Upgrade Projects	14
LOC Restoration	1

(12) In the above efforts the battalion placed 554 CY concrete this period.

(13) The Sand-Cement Plant produced 11,667 tons of sand-cement this period.

(14) The battalions formal training program continued during the period. Training is conducted Sundays on subjects outlined in the battalion training plan. The S-3 section provides required replacement training for all new arrivals within 7 days of their assignment to the unit.

e. Logistics and Maintenance

(1) Supply: The dedication of an LCU to the battalion in support of QL-4 has been of immeasurable assistance to the battalion during this period. Supplying materials for the QL-4 project would have been difficult without this transport capability. These supplies included; cement, asphalt, fuel, rations, construction materials, water, and miscellaneous items, as well as the deployment and retrograde of personnel and equipment.

(2) Maintenance: At the begining of this quarter we experienced a continuously increasing deadline rate. The primary reason for this was the increased command emphasis on detecting and reporting equipment deficiencies. Many deficiencies such as leaking seals, engine knock, mal-adjusted brakes were discovered by the operators and reported to the organizational maintenance personnel. Numerous vehicles and equipment were scored out and replacements requisitioned. The deadline rate peaked about the middle of the quarter and has been decreasing ever since. The following summarizes the Job Orders for Direct

Support Maintenance, the 02-17 requisitions, and the Red Ball status for this quarter:

(a) Direct Support			
	August	131	A Co DSA
		3	51st Maint
	September	136	A Co DSA
		12	51st Maint
	October	91	A Co DSA
		0	51st Maint
	Total	373	
(b) 02-17 Req Status			
	Submitted	7,527	
	Filled	1,830	
	% Filled	24%	
(c) Red Ball Req Status			
	Submitted	493	
	Filled	125	
	% Filled	25%	

f. **Civil Affairs:** Civic action during the period continued to take the course of manhours expended on a volunteer basis. Also Medcaps were conducted by the medical section, headed by the battalion surgeon. Donations of money and clothing and other goods continued at a constant rate during the period. Due to the high priority of construction projects and the lack of materials, no effort was available for directed projects during this quarter.

2. SECTION II, Lessons Learned

a. Personnel: None
b. Intelligence: None
c. Operationa:

(1a) Observation: Numerous failures have been observed in runways with M8A1 matting surfaces.

(1b) Evaluation: If the matting is not anchored properly along the sides of the runway and the matting is not progressively pulled tight and anchored on both ends of the runway, an excessively loose surface will develop after repeated landings and take offs. This causes pumping action under traffic and with the configuration of the matting transverse movement of base materials

perpendicular to the center line of the runway occurs. This builds up a deposit on the shoulders which further traps the runoff and increases the pumping under traffic even after the surrounding area is dry.

(1c) Recommendation: Inaddition to the proper construction techniques of anchoring and stretching the M8A1 matting, a re-evaluation of the matting configuration may be in order. Pumping action in PSP is up and down thru perforations. The base of the one observed airfield in the Delta of this type has held up well. An impervious layer under the matting resistant to the eroding effect of the pumping action improves the longevity of the runway. T-17 membrane is recommended for this use.

(2a) Observation: Relocation and re-erection of preengineered buildings can be difficult.

(2b) Evaluation: When prefabricated buildings are dismantled for re-erection at a different location often parts are not kept in order, lost, or damaged due to carelessness in dismantling. Another cause of problems is an improper method of shipping which would allow any of the pieces to get damaged or lost while being transported.

(2c) Solution: A system of marking parts as they are removed and a method of keeping parts separate should be devised before attempting to remove any parts of the building. Parts of each building should be banded securely together on a pallet. Pallets should be loaded so that they are a neat and solid package and small parts should be fixed together so that they will not come apart during shipment.

(3a) Observation: Failure of the dust cover over sand fill in helicopter revetment exposes sand to air turbulence with a resulting safety hazard as well as reducing the protection provided.

(3b) Evaluation: Compaction of sand filled revetments with internal cross bracing is difficult by hand or mechanical means and settlement occurs and the sand cement or asphalt sand dust cover breaks up exposing the sand to the turbulence of the helicopter blades.

(3c) Recommendation: Flooding sand filled revetments with water provides adequate settlement within the revetment and a 4" thick layer of sand cement or sand asphalt may be placed on top with a crown and keyed several inches into the revetment.

(4a) Observation: Natural clay berms are difficult to construct during the monsoon season.

(4b) Evaluation: Remolded clay is not as resistant to shear as clay in situ. Moisture content is increased due to exposure to weather and the clay cannot be compacted in the berm configuration. A completed berm needs protection from future rainy seasons.

(4c) Recommendation: Clay-filled drum berms allow for this type of construction during the wet season, the clay being readily available from paddies with a crane with dragline attachment. Penoprime and grass seeding has protected natural clay berms.

d. Organization: None
e. Training: None

EGFA-OP 12 November 1969

SUBJECT: Operational Report - Lessons Learned, 69th Engineer Battalion (Construction) for the Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

f. Logistics: None

g. Communications:

(1a) Observation: Problems arising in the use of field wire, such as shorts and grounds.

(1b) Evaluation: Cause due in many cases to the heavy rains and extreme heat that is prevalent in the Republic of Vietnam.

(1c) Recommendation: That simplex circuits be used whenever possible. Circuit quality is found to be excellent and maintenance time is minimal.

h. Materials: None

i. Other: None

FOR THE COMMANDER

1 Incl
as

ALBERT G. SPARROW
1LT, AGC
Adjutant

EGF-OP (31 Oct 69) 1st Ind
SUBJECT: Operational Report of 69th Engineer Battalion (Const) for Period Ending 31 October 1969, RCS CSFOR-65(R2)

DA, HEADQUARTERS 34TH ENGINEER GROUP (CONST), APO 96320 1 NOV 1969

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D.C., 20310
Commanding Officer, 20th Engineer Brigade, ATTN: AVBI-OS, APO 96491

The subject report submitted by the 69th Engineer Battalion (Const) has been reviewed by this headquarters and is considered comprehensive and of value for documentation and review of the reporting unit's activities and experiences.

FOR THE COMMANDER:

IVYL LAYERS
CPT, CE
Adjutant

Copy Furnished:
CO, 69th Engr Bn (Const)

(12)

AVEI-OS (12 Nov 69) 2nd Ind

SUBJECT: Operational Report of 69th Engineer Battalion (Const) for Period Ending 31 October 1969, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491 07 DEC 1969

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1968.

2. This headquarters concurs with the submitted report with the following Comments:

a. Section II, paragraph c, pages 6 and 7:

(1) Although the observation is correct, the failure initiates with the subgrade failure. Subsequently, repeated cycles over the subgrade failure will cause the M8A1 matting to fatigue under a bending moment. It has been noted that at Ca Mau Airfield, exposure to moisture over an extended period of time has caused the M8A1 matting to rust out.

(2) Dust covers over sand fill in helicopter revetments should be constructed of a concrete cap if materials are available. This has proven to be an effective, long-lasting solution to this problem.

b. Section II, paragraph g, page 8: A simplex circuit is one in which a ground-return telephone or telegraph circuit is added on to a single full-metallic circuit to obtain an additional circuit. This is accomplished by use of repeating coil C-161. Outside of enabling the use of one pair of wires for two circuits, simplexing in itself will not cut down on shorts or grounds in field wire.

FOR THE COMMANDER:

S. B. KENNEDY
MAJ, AGC
Adjutant

CF:
CO, 34th Engr Gp
CO, 69th Engr Bn

(12)

AVHGC-DST (12 Nov 69) 3d Ind
SUBJECT: Operational Report - Lessons Learned, 69th Engineer Battalion (Construction) for the Period Ending 31 October 1969, RCS CSFOR-65 (R2)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 8 JAN 970

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT, APO 96558

This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 October 1969 from Headquarters, 69th Engineer Battalion (Construction) and concurs with the report as indorsed.

FOR THE COMMANDER:

Norman D. Selby, LTC

B. A. GOODWIN
MAJ, AGC
Assistant Adjutant General

Cy furn:
69th Engr Bn
20th Engr Bde

(19)

GPOP-DT (12 Nov 69) 4th Ind
SUBJECT: Operational Report of HQ, 69th Engineer Battalion (Construction) for Period Ending 31 October 1969, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 14 JAN 70

TO: Assistant Chief of Staff for Force Development, Department of the Army. Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

C. L. SHO
CPT, AGC
Asst AG

EGFA-OP 12 November 1969

SUBJECT: Operational Report - Lessons Learned, 69th Engineer Battalion (Construction) for the Period Ending 31 October 1969, RCS CSFOR - 65 (R2)

List of Organizational Units

1. Headquarters & Headquarters Company - MTOE 5-11G
2. Company A (Equipment and Maintenance)- MTOE 5-117G
3. Company B (Construction)- MTOE 5-118G
4. Company C (Construction)- MTOE 5-118G
5. Company D (Construction)- MTOE 5-118G

Inclosure 1

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Experiences of unit engaged in counterinsurgency operations, 1 Aug 69 to 31 Oct 69.

5. AUTHOR(S) (First name, middle initial, last name)

CO, 69th Engineer Battalion

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